Properties of Spectrally-defined Red QSOs at z = 0.3-1.2

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Red QSOs

- QSO
  - QSO is one type of AGN
  - The spectrum of typical QSOs is blue
- Red QSOs
  - Dust reddening
    - Obscured by AGN torus
    - Produced during galaxy mergers that trigger QSOs

Previous Method vs. Our Method

- Previous method:
  - **Photometric color**
  - The criteria to select Red QSOs is not uniform
  - Contamination from redshifted strong emission lines
  - Photometric data of the same filter actually represent different waveband properties at different redshifts
- Our method:
  - **Relative Spectral Flux**
  - Uniformly defined by statistical definition
  - Can avoid the weakness of photometric selection

New Results

- The Red QSOs we found includes **two types**:
  - (Type I) Red color is caused by **dust absorption**
  - (Type II) Red color is **NOT** caused by dust absorption.

- At low redshifts and at high redshifts show different properties:
  - At low redshifts, more type I
  - At high redshifts, more type II

- **For more detail, please see my poster**